



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-5044; Directorate Identifier 2014-NM-166-AD; Amendment 39-18718; AD 2016-24-01]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-102, -103, and -106 airplanes; and Model DHC-8-200 and -300 series airplanes. This AD was prompted by a report of heat damage found on a nacelle firewall after an unsuccessful engine ground start and several events of heat damage found on direct current starter/generator terminal block assemblies. This AD requires an inspection to detect damage on the nacelle firewalls and the terminal block assemblies and to make sure the insulating sleeves are installed and have no damage, and corrective action if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5044.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5044; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York Aircraft

Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc. Model DHC-8-102, -103, and -106 airplanes; and Model DHC-8-200 and -300 series airplanes. The NPRM published in the Federal Register on April 12, 2016 (81 FR 21495) (“the NPRM”).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-03R1, dated July 24, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-102, -103, and -106 airplanes; and Model DHC-8-200 and -300 series airplanes.

The MCAI states:

There has been one in-service report of heat damage on a nacelle firewall found after an unsuccessful engine ground start. There have also been several reports of heat damage found on Direct Current Starter/Generator terminal block assemblies, part number (P/N) 82450075-001.

The investigation determined that in all cases, the heat damage was caused by arcing between the firewall and terminal blocks with missing insulating sleeves on the conductive bushings. The insulating sleeves may have been inadvertently omitted during the incorporation of Modsum 8/1926, or during the installation of terminal blocks P/N 82450075-001.

Arcing with the firewall becomes an ignition source, creating a potential fire hazard when combined with a fuel or hydraulic fluid leak.

The original issue of this [Canadian] AD mandated the [detailed visual] inspection [for damage to the nacelle firewalls and to make sure the insulating sleeves are installed and have no damage] and rectification [corrective actions such as installing or replacing insulating sleeves, or replacing a terminal block], as required, of the nacelle firewall and terminal block assembly P/N 82450075-001 installed with Modsum 8/1926.

Revision 1 of this [Canadian] AD is issued to revise the Applicability to ensure that the terminal blocks have the insulating sleeves installed.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5044.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM and the FAA's response to the comment.

Request to Reduce the Compliance Time

The Air Line Pilots Association, International requested that, due to the nature of the AD, the proposed 14-month compliance time be reduced to 10 months.

We do not agree to reduce the compliance time. The 14-month compliance time was developed by TCCA in coordination with Bombardier, Inc., and we concur that it is an appropriate compliance time. However, if we receive data to justify a shorter compliance time, we may consider further rulemaking on this issue. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR part 51

We reviewed Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014. The service information describes procedures for an inspection to detect damage on the nacelle firewalls and the terminal block assemblies and to make sure the insulating sleeves are installed and have no damage, and corrective action. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 75 airplanes of U.S. registry.

We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$12,750, or \$170 per product.

In addition, we estimate that any necessary follow-on actions will take about 1 work-hour and require parts costing \$551, for a cost of \$636 per product. We have no way of determining the number of aircraft that might need these actions.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-24-01 Bombardier, Inc.: Amendment 39-18718; Docket No. FAA-2016-5044; Directorate Identifier 2014-NM-166-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, certificated in any category, serial numbers 003 through 672 inclusive, on which terminal block part number 82450075-001 is installed.

(1) Model DHC-8-102, -103, and -106 airplanes.

(2) Model DHC-8-201 and -202 airplanes.

(3) Model DHC-8-301, -311, and -315 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical Power.

(e) Reason

This AD was prompted by a report of heat damage found on a nacelle firewall after an unsuccessful engine ground start and several events of heat damage found on direct current starter/generator terminal block assemblies. We are issuing this AD to prevent arcing between the firewall and terminal blocks that are missing insulating sleeves on the conductive bushings, which could, in combination with a fuel or hydraulic fluid leak, be an ignition source for a fire.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection and Corrective Action

Within 2,500 flight cycles or 14 months after the effective date of this AD, whichever occurs first, perform a detailed visual inspection of the right-hand side and left-hand side nacelle firewalls and terminal block assemblies, as defined in Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014.

(1) If the inspection finds no damage on the engine firewalls and the terminal blocks, and that undamaged insulating sleeves are installed on both terminal blocks, no further action is required by this AD.

(2) If the inspection finds that no insulating sleeves are installed, or the existing sleeves are damaged, and there is no damage to the nacelle firewall and terminal block, before further flight, install the replacement insulating sleeves, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014.

(3) If the inspection finds that no insulating sleeves are installed, or any existing sleeve is damaged, and there is no damage to the nacelle firewall, but there is damage to the terminal block, before further flight, replace the terminal block assembly (which includes insulating sleeves), in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014.

(4) If the inspection finds that no insulating sleeves are installed and there is damage to the nacelle firewall and the terminal block, repair the damage using a method

approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 8-24-92, dated September 25, 2013.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate,

FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-03R1, dated July 24, 2014, for related information.

This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5044.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (k)(4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 8-24-92, Revision A, dated April 11, 2014.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 10, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2016-28054 Filed: 11/23/2016 8:45 am; Publication Date: 11/25/2016]